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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/615,249
Filing Date: July 08, 2003
Appellant(s): RAPP ET AL.

Raymond Mandra
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12-21-07 appealing from the Office action mailed 8-10-07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,055,669	KELLY	10-25-77
6592915	FROSETH ET AL.	7-2003
3,615,590	AVERA	10-1971

Rombauer, Irma. Joy of Cooking, The Bobbs-Merrill Co., Inc. MacMillan, Inc.NY, 1986, pages 705 and 708.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 1-4, 6-8, 10-24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for 1 to about 4.5 g of fortification components, does not reasonably provide enablement for 1 to about 4.5 g of vitamins and minerals. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-8, 10, 13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. (Kelly, 4,055,669) in view of Froseth et al. (6,592,915).

Kelly et al. disclose making a binder composition as in claim 1 of fat, sodium caseinate (protein) and milk solids, and sugar to make a homogenous mixture, to which sensitive components such as vitamins and minerals, emulsifiers and colors are added at a temperature, and within a degree of mixing

in a mixer that will not crush the particles as in claims 4, and 8 (col. 5, lines 54-66, col. 6, lines 29-60). The reference discloses that the blending is a critical operation that was done at temperatures from 100 to 140 F. and limited to the extent necessary to wet the added cereal particles.

The protein powder is sodium caseinate, which has been rolled with other ingredients to the size of 50 microns as in claims 6 and 10. The protein powders would have had to be about the claimed particle size of at least 35 microns since all the ingredients are 50 microns (Kelly, col. 6, lines 38-60).

Claims 1-3 differ from the reference to Kelly in the particular hedonic score, (claim 1), in the confidence level of claim 2 and the consumer acceptability hedonic score of claim 3. The hedonic score as in claim 1 of at least 5.2 is shown because the composition of Kelly can be a bar and does provide energy and nothing is seen that the bar would not have the claimed hedonic value (abstract). Also, Kelly discloses that processes that improve the mean hedonic score of the energy bar as disclosed in Applicants' specification on page 4, 0015. The fortification ingredients as in step b are placed strategically in the binder (col. 5, lines 40-43). In this way, the vitamins and minerals are allowed to be found throughout the composition, and not in one place where they might taste strong or gritty, depending on the vitamin or mineral. Also, a fat-carbohydrate matrix is provided by combining fat, and sugar to make the binder (energy bar matrix), as in step d, proteins powders with a particle size distribution of at least 30% of the protein powder with a mean particle size of at least 35 microns is shown, as the roll mill reduces the particles to about 50 microns (col.

6, lines 30-60. Last, as in step A, a process sensitive ingredient such as cereal is operated at a low speed at a critical temperature and with limited mixing (col. 5, lines 55-65).

A confidence level of 60% is seen to have been shown as it would inherently have this value since the product is an energy bar (abstract) as in claim 2 and acceptability since it is an energy bar and would inherently have this consumer acceptability as in claim 3 absent a showing to the contrary. As all the criteria for improving the hedonic score have been met by Kelly et al., the hedonic scores and confidence level was improved (page 7, 0026). Paragraph 0026 states that the hedonic score can be improved by particular processing procedures. All 4 have been disclosed above when only one is required. Therefore, it would have been obvious to make a food bar containing the claimed ingredients with the same hedonic scores and confidence levels absent a showing to the contrary since the claimed ingredients and amounts or amounts close to the required ones have been shown, and the processing parameters for improving the hedonic score have been disclosed.

This composition would make a chewy energy bar with an acceptability of at least 4.9 due to the use of the claimed ingredients as in claim 7 (Kelly, col. 6, lines 29-60).

Claims 1-10, 13, 18-20 also require that the compositions contain particular amounts of proteins, fat, and carbohydrates in a bar containing particular amounts of calories, particular serving size and moisture content. However, particular amounts, moisture content, calories and serving sizes are seen to have been within the skill of the ordinary worker. Claims 4, 8, 14, 21, 22 are also a product by process claims. The fact

that the procedures of the reference are different than that of applicant is not a sufficient reason for allowing the product-by-process claims since the patentability of such claims is based upon the product formed and not the method by which it was produced. See *In re Thorpe* 227 USPQ 964. The burden is upon applicant to submit objective evidence to support their position as to the product-by-process claims. See *Ex parte Jungfer* 18 USPQ 2D 1796. Even if the claimed ingredients are not exactly as claimed, it would have been obvious to vary amounts and ingredients as in using various recipes as the function of each ingredient is known (*Froseth et al.* (col. 26, lines 49-56)). Therefore, it would have been obvious to use particular amounts of ingredients, calories, serving sizes and moisture content in the claimed compositions.

The independent claims also require that particular ingredients are selected from the corresponding Markush grouping. However, the ingredients in each of the group seem to include any and all relevant types of protein fats and proteins and as in *In re Levin*, nothing new is seen in using known ingredients for their known functions. Attention is invited to *In re Levin*, 84 USPQ 232 and the cases cited therein, which are considered in point in the fact situation of the instant case, and wherein the Court stated on page 234 as follows:

This court has taken the position that new recipes or formulas for cooking food which involve the addition or elimination of common ingredients, or for treating them in ways which differ from the former practice, do not amount to invention, merely because it is not disclosed that, in the constantly developing art of preparing food, no one else ever did the particular thing upon which the applicant asserts his right to a

patent. In all such cases, there is nothing patentable unless the applicant by a proper showing further establishes a coercion or cooperative relationship between the selected ingredients which produces a new, unexpected, and useful function. In re Benjamin D. White, 17 C.C.P.A (Patents) 956, 39 F.2d 974, 5 USPQ 267; In re Mason et al., 33 C.C.P.A. (Patents) 1144, 156 F.2d 189, 70 USPQ 221.

Claims 1 and 2 and other independent claims and dependent claims require slightly different amounts of ingredients. However, it is seen that it would have been within the skill of the ordinary worker to use particular amounts of known ingredients, absent a showing of unexpected results using the claimed amounts. See In re Thorpe, as above.

Therefore, it would have been obvious to use known ingredients in various amounts to make an energy bar and to vary known ingredients as shown in the reference to make it acceptable in taste and to use particular processing parameters to improve the hedonic score.

Further, Froseth et al. disclose as in claim 4 adding sensitive food ingredients to a binder (abstract and Fig. 5A and col. 4, lines 36-44, col. 14, lines 61-70). The reference discloses that flavors are added last to avoid adverse affects from too much heat (col. 13, lines 9-11). Nothing is seen that the degree of mixing affects the sensitive components. The reference is aware that various process parameters such as temperature affect the ingredients. The velocity of mixing is well known to affect ingredients, hence the settings on mixers of slow to fast. Therefore, it would have been obvious to make a composition in which the temperature and shear were controlled.

Claim 13 further requires the addition of fortification ingredients. Kelly et al. disclose the addition of vitamins and minerals to the binder of that composition (col. 5, lines 40-51). Therefore, it would have been obvious to fortify as shown by Kelly et al.

The limitations of claim 18 have been disclosed above by the above combination of references, which would give the hedonic gains as in claims 19 and 20. Therefore, it would have been obvious to make the composition by processing sensitive ingredients as shown by Kelly et al., and strategically positioning functional ingredients as shown by Kelly and to use a fat carbohydrate matrix as disclosed by Rombauer et al. in the process of Kelly et al. if one wanted to add more fat as shown by adding the candy inclusions of Rombauer (chocolate chips) or the fat carbohydrate matrix as shown on page 708 of Rombauer et al.

Claims 14 further and 16 require that an energy bar matrix is made by mixing a solid component into a syrup to make an energy bar matrix, and then mixing the matrix with a fat-carbohydrate matrix. Rombauer et al. disclose, in the recipe Pfeffernusse, an energy matrix made of corn syrup which is combined with a solid component, grated lemon rind, which is mixed into a fat-carbohydrate matrix (butter and sugar)(page 708). The composition is considered to have a lubricious mouth feel since the claimed ingredients are used. The composition is considered to be an energy bar, since it is well known that carbohydrates such as corn syrup provide quick energy. Fat also is the storage form of carbohydrates and provides energy. Therefore, it would have been obvious to use the method of Rombauer in the process of the combined references in

order to make an energy bar in order to show that it is known to mix a syrup with a fat-carbohydrate mix.

Claims 14-17 further require particular amounts of ingredients, calories and moisture content and serving size. However, In re Thorpe applies as above. Therefore, it would have been obvious to use particular amounts, calories and moisture contents and serving size to make an energy bar. The composition is considered to have the claimed hedonic score as in claims 15 and 17 as the composition has been shown.

Claim 21 further requires a particular fat to carbohydrate ratio. However, this ratio is so large, that it is seen that it would have been within the skill of the ordinary worker to vary the ratio depending on whether a low-calorie or a less sweet bar is required. The further ingredients are well known food ingredients used in making food bars, and nothing unexpected as in In re Levin is seen in their use. Therefore, it would have been obvious to vary the amount of fat to carbohydrate ratio, in order to make a good tasting bar, or a low fat or sugar bar.

Claim 22 further requires a particular moisture content. No moisture content is found for Kelly. However, as no water is added to the composition and the composition contains the claimed ingredients, it is seen that the moisture content would have been within the claimed amount in Kelly. Froseth et al. disclose an Aw of from 0.35 to 0.55 which is seen to have been within the claimed range (col. 2, lines 60-70). Therefore, it would have been obvious to make a bar with the claimed moisture content as shown by Froseth et al. in the composition of Kelly et al.

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the above combined references as applied to claims 1-4, 6-8, 10-22 above, and further in view of Avera (3,615,590).

Avera discloses a nut butter with a particle size of 96 % which would pass through a US sieve of 200 mesh size which is 75 microns, which leaves less than 10% having a particle size of less than 75 microns (col. 2, lines 65-70). No patentable distinction is seen at this time in the sizes of less than 10% as most of the particle sizes are within the claimed range. Therefore, it would have been obvious to use a nut butter which contains plant protein in near the claimed amounts in the process of the combined references because the reference discloses that protein is known in the claimed amounts.

NEW GROUNDS OF REJECTION

Claims 11 and 12 were found in the original rejection of Kelly et al. in view of Froseth et al and Rombauer et al. However, over the prosecution of the application, it is seen that claims 1-10 did not require Rombauer as in the first rejection.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. (Kelly, 4,055,669) in view of Froseth et al. (6,592,915) as applied to claims 1-10 above, and further in view of Rombauer et al., p. 705, 708.

Claim 11 further requires that an energy bar matrix is made by "gently folding" or mixing a solid component into a syrup to make a energy bar matrix, and then mixing the matrix with a fat-carbohydrate matrix. However, this is a product by process limitation in

a composition claim. At any rate, Rombauer et al. disclose, in the recipe Pfeffernusse, an energy matrix made of corn syrup which is combined with a solid component (grated lemon rind), which is mixed into a fat-carbohydrate matrix of butter and sugar (page 708). The energy bar is seen to be lubricious since it contains fat. See In re Levin above. Therefore, it would have been obvious to make a composition with matrixes as shown by Rombauer et al. as required in the composition of Kelly et al.

Claim 12 further requires adding well-known types of candies, which contain fat and carbohydrates into the energy bar. However, nothing new is seen in adding a fat-carbohydrate mixture as in chocolate chip cookies or bars, which contain chocolate chips or in cookies which contain the large chocolate kiss (Rombauer, page 705, chocolate-chip drop cookies). Therefore, it would have been obvious to add candy inclusions into an energy bar matrix for their known function of adding more fat and sugar in a tasteful formulation.

(10) Response to Argument

Appellants' arguments filed 12-21-07 have been fully considered but they are not persuasive. Appellants argue that by disclosing that the specification contains basis for 1-4.5 g. fortification components, that it is enabled for 1-4.5 g. vitamins and minerals. This is not seen because vitamins and minerals often have effects on the taste and flavor of the composition by causing off-tastes and off-flavors, and no basis is seen for adding particular amounts of 1-4.5 g. of vitamins and minerals.

Appellants argue that there is no motivation to combine the references. However, each reference is used for what it teaches and is combined for the reasons

stated in the office action. All the ingredients are known and with any recipe Appellants are combining them so that they taste good.

Appellants argue that the references need to be pertinent to the problem. However, Appellants' claims are to broad classes of carbohydrates, proteins and fats. As the claims provide energy, by providing calories, they are considered to be in the claimed field of endeavor. As above, the claims are not seen to have been enabled for vitamins and minerals in the claimed amounts.

Appellants argue that proper weight has not been given to Mr. Rapp's Declarations. In paragraph 10 Mr. Rapp argues that Kelly et al. discloses at least 11 g of fat which is outside of the amount of 8 g claimed. Even if the amount is 2 grams more, nothing inventive is seen in using 2 grams less of fat as the outcome is known, of using less fat for its known coating functions and for the function of reducing calories. Also, even if the exact amount of ingredients is not shown by the references, the claimed ingredients are known, and it would have been obvious to vary the amounts as shown by countless recipe books and the references.

Mr. Rapp also declares that the reference to Froseth et al. do not contain the claimed amount of 1 to 5 g. of fortification components. However, claim 1 has been amended to require that they be vitamins and minerals, of which the claims are not seen to have been enabled. Also, in Froseth et al. mention is made of adding more than calcium to the binder in the way of vitamins and minerals in amounts equal to a serving of cereal and milk (col. 26, lines 5-10).

Mr. Rapp also declares that Rombauer does not disclose the claimed amount of protein. However, the primary reference to Kelly et al. disclose amounts within the claimed amounts (col. 9, lines 60-65).

Mr. Rapp declares in section 15 that by adding the fortification ingredients that it is not clear that the products of the combined references would have met their hedonic score, and that other energy bar products do not. However, Appellants' claims are to compositions and a process whose ingredients have been shown as known or that it is obvious to combine such ingredients.

Mr. Rapp argues that Froseth has 44% less fortification ingredients and that fortification ingredients can taste very bad. However, this amount is for calcium alone, in the reference as disclosed above. Certainly, the other vitamins and minerals add up to more if a bowl of cereal and milk is being mimicked. In addition, particular ingredients such as most of the proteins, chocolate and peanut butter, as claimed are in themselves strong tasting and would have been expected to cover up bad tasting ingredients.

In paragraph 17 of Rapp's declaration, he argues that the Pfeffernusse composition does not contain the claimed amounts of ingredients and if more protein was added and fortification components then the product would not taste good. However, the Pfeffernusse composition was used to teach "gently folding" or mixing a solid component into a syrup to make a energy bar matrix, and then mixing the matrix with a fat-carbohydrate matrix. This limitation was a process limitation in a composition claim which is not given weight.

Mr. Rapp argues in paragraphs 18 and 19 that negative taste of the protein and fortification must be masked, and that small amounts are significant in terms of percentage. However, nothing new is seen in tweaking a composition, and varying the ingredients so that it will taste good.

As to the process limitations in paragraph 20, these have been disclosed as known as above.

Appellants argue that Kelly and Froseth teach away from the claims and in particular that the shearing action should be sufficient to mix process sensitive components into the homogeneous base by using a low speed. Froseth et al. disclose as in claim 4 adding sensitive food ingredients to a binder (abstract and Fig. 5A and col. 4, lines 36-44, col. 14, lines 61-70). The reference discloses that flavors are added last to avoid adverse affects from too much heat (col. 13, lines 9-11). The reference is aware that various process parameters such as temperature affect the ingredients. The velocity of mixing is well known to affect ingredients, hence the settings on mixers of slow to fast. Certainly, it would have been within the skill of the ordinary worker to not ruin ingredients by over mixing. One is aware that mixing on high too long, makes butter out of cream instead of whipped cream, if one mixed chocolate chips too long, they would not hold their shape.

Footnote 1 argues that "the addition of heat sensitive vitamins to the binder last still does not teach the present invention because it does not teach that shear may also affect the process sensitive component, and thus encourages adding a fortification component to a binder mixed with a high speed mixer (page 22 of Appeal Brief). This

is not seen since claims 1-15, 21-24 are not process claims and process limitations are not given weight in composition claims. Dependent claim 18 does require "controlling the temperature and/or shear energy imparted on said process sensitive ingredients". Froseth et al. specifically discloses adding heat sensitive ingredients vitamins C and A at the end of the process (col. 15, lines 60-70, col. 16, lines 1-15). Adding the heat sensitive ingredients at the end of the process of course, lessens the amount of shear imparted to the ingredients.

Appellants argue in section 2, that it is moot to argue whether the products of the combined references taste good, since they are not energy bars and that they have made a better tasting energy bar as shown by hedonic scores. However, the claimed ingredients are all known, as is the process, whatever, the product is called.

Appellants argue that the references do not teach the claimed particle size of the protein powder as in claim 22 and that the claimed caseinate size has not been shown by the examiner. However, once the Examiner has made this statement the burden is on the Appellants to show that this is not so, as the Examiner does not have the facilities to determine the particle size of sodium caseinate (protein powder).

Appellants argue that they do not have any means of knowing what the protein powder (caseinate) of Kelly would have been. However, they could surely find out what the general size of such powders used in candy bars and energy bars is. In addition, Avera discloses a nut butter with a particle size of 96 % which would pass through a US sieve of 200 mesh size which is 75 microns, which leaves less than 10% having a particle size of less than 75 microns (col. 2, lines 65-70).

Art Unit: 1794

Appellants argue that Avera does not teach a protein powder, as in claim 23, but a nut butter. However, Avera does teach applicants' particle size which would have to be in powder form to be that size.

It is not seen that the peanut particles of Avera cannot be used in an energy bar, particularly as peanut butter is known to be used in such and the particle size of the peanuts as claimed has been shown.

Appellants argue that the claims are not obvious in light of objective indicia such as long felt need, etc. However, the claimed composition and process has been shown and it would have been obvious to make such a product as shown above.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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